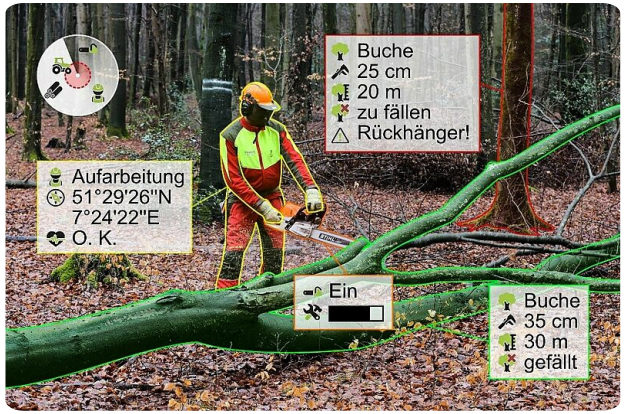
KWH4.0 | Center of Excellence for Forestry 4.0



Forest and Wood 4.0 - the forest cluster becomes smart

The Center of Excellence for Forestry 4.0 is developing Industry 4.0 digitalization concepts for the forest and wood cluster. The driving force behind this approach is a closely cooperating working group of companies, research centers and the Forestry Education Center North-Rhine Westphalia as a practical testbed.New, intelligent and decentrally acting machines, devices, services and people, will enable the cluster to optimize its complex value-added networks, develop new business models and meet current challenges from ecology, economy and climate change. Existing approaches address the complexity of structures and processes, and the conflicting demands on forest management only insufficiently. To "smartify" the forest and wood cluster, existing competencies from industry, science and administration must be bundled: The goal of KWH4.0 is to create a know-how base and infrastructures, and to implement forest and wood 4.0 components via innovative Smart Forest Labs. The Smart Forest Labs serve as experimental forestry laboratories in which developed components, systems and processes are tested, standardization advanced, concepts disseminated, and actors trained. Developed concepts and standards are continuously published as practical recommendations, a first version of the communication infrastructure S3I (Internet of Things application) has been established. In addition, there is an increasingly smart fleet: forestry machines have been upgraded to retrieve digital information (GPS position, fuel consumption, production data, etc.) and at the same time networked via alternative radio standards with machines in regions where mobile communication is not possible.

DéTAILS

ORIGINE DU BOIS
--

TYPE DE BOIS
--

TYPE DE BOIS CONCERNé
--

IMPACT SUR L'ENVIRONNEMENT ET LA BIODIVERSITé
Other solutions from the KWH4.0 network address sensor-supported forest monitoring in order to increase resilience against climate change.

EFFET SUR LE REVENU
--

POTENTIEL D'EXPLOITATION
--

HUB
Centre-Ouest

IMPACT éCONOMIQUE
--

POTENTIEL DE MOBILISATION
High, the KWH4.0 as a competence hub supports a wide range of projects and digital solutions, which in turn support wood mobilization.

POTENTIEL DE DURABILITé - VALEUR
Très positif

FACILITé D'IMPLéMENTATION
The KWH4.0 has received ERDF funding to start working. A challenge can be the core collaboration from both sides, forestry and ICT, needed to kick off activities.

FACILITé D'IMPLéMENTATION - ÉVALUATION
--

PRéREQUIS CLéS
--

TYPE D'éVéNEMENT Où CETTE ICPE A éTé PRéSENTéE
Visite d'étude (T2.3)

EFFET SUR L'EMPLOI
--

COûTS D'IMPLéMENTATION (EURO - €)
--

CONNAISSANCES SPéCIFIQUES REQUISES

--

PLUS DE DéTAILS

DéFI CONCERNé

5. Accroître les performances économiques et environnementales de la chaîne logistique forestière

DOMAINE

Gestion de l'innovation, hubs digitaux, clusters, exploitation (transversale)

TYPE DE SOLUTION

Modélisation, DSS, simulation, optimisation

MOTS-CLéS

--

SOLUTION DIGITALE

Oui

INNOVATION

Oui

PAYS D'ORIGINE

Allemagne

ECHELLE D'APPLICATION

Régionale/subnationale

DéBUT ET FIN D'ANNéE

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REFERENCES AND RESOURCES

SITE WEB PRINCIPAL

https://www.kwh40.de/

SITE WEB DU PROJET

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RéFéRENCE DU PROJET

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RESSOURCES

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LOGO DE LA BONNE PRATIQUE

LOGO DE L'ORGANISATION PRINCIPALE

PROJET SOUS LEQUEL CETTE FICHE D'INFORMATION A éTé CRééE

Rosewood 4.0

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A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY